CENTERS FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

January 20, 1989 / Vol. 38 / No. 2

Current Trends

Education about Adult Domestic Violence in U.S. and Canadian Medical Schools, 1987–88

Approximately 4 million spouses are beaten annually in the United States (*1*), and the rate of violence among college student dating partners on some campuses may approach that found within marriage (*2,3*). The prevalence of elder abuse is also under investigation (*4*). Despite substantial estimates of the magnitude of adult domestic violence (ADV), evidence exists that physicians and other health-care workers require further instruction in recognizing and treating these problems. For example, a study at a large metropolitan hospital suggested that, by using current diagnostic techniques, personnel in that hospital correctly identified fewer than 5% of episodes of domestic violence involving adult female patients (*5*).

The Surgeon General's Workshop on Violence and Public Health (*6*) and the Attorney General's Task Force on Family Violence (*7*) recommend that curricula of medical schools and other relevant professional schools include education about domestic violence. To determine current curriculum content about ADV, all 143 accredited U.S. and Canadian medical schools were surveyed during the 1987–88 academic year by the New Jersey Medical School Domestic Violence Prevention Project (NJMS DVPP). The surveys were mailed to curriculum contact persons* identified by the Association of American Medical Colleges. Instruction about ADV was defined as training, specified in the curriculum, that pertained to any or all types of ADV. The survey did not specifically define "adult domestic violence," but listed the following examples: physical abuse, emotional abuse, sexual abuse, spouse abuse, elder abuse, battered women, and dating violence.

Representatives of 116 schools (81%) responded to the survey. Of those 116 schools, 61 (53%) indicated that their students did not receive any instruction about ADV; 49 (42%) reported that their students received such instruction as part of at least one required course; and six (5%) reported that their students received no required instruction about ADV but could choose to receive such instruction as part of an elective.

*If a designated curriculum contact suggested an additional contact, information from both contacts was combined.

Domestic Violence — Continued

Overall, 77 courses that included at least one session of instruction about ADV were identified. Because some of these courses devoted more than one session to such instruction, a total of 85 sessions of instruction addressing ADV were identified. For schools offering such sessions, the mean number of sessions offered was 1.5, and the mean number of hours per session was 1.9 (range, 0.5–6.0).

Of all sessions addressing ADV, 68% were offered in the first 2 years of medical school. Departments of psychiatry or other behavioral sciences taught 63% of all sessions on ADV; family practice, 7%; geriatrics, 7%; and internal medicine, 7%. The remaining 16% were either interdepartmental or under the auspices of the Dean or departments of community/environmental health, obstetrics and gynecology, pathology, or surgery. The format of instruction varied widely, sometimes including use of films or direct contact with domestic violence victims to supplement lectures and discussions.

Reported by: HA Holtz, MD, C Hanes, MPH, New Jersey Medical School, Univ of Medicine and Dentistry of New Jersey. MA Safran, College of Medicine, State Univ of New York Health Science Center, Syracuse. Intentional Injuries Section, Epidemiology Br, Div of Injury Epidemiology and Control, Center for Environmental Health and Injury Control, CDC.

Editorial Note: Within the past decade, ADV has been identified as a major public health problem in the United States (*5,6,8*). No surveillance of ADV exists, and assessment of the magnitude and impact of this problem is difficult. To help physicians better detect and properly refer victims and potential victims of domestic violence, the American College of Obstetricians and Gynecologists (ACOG) recently sent information about battered women to its 28,000 members (*9,10*).[†] This material suggests that women identified as domestic abuse victims should be provided information about women's rights, available community resources, and strategies to deal with abusive relationships.

This survey may be the first attempt to determine the prevalence of medical school instruction about ADV. The finding that 58% of the responding schools do not require instruction about ADV may be conservative because schools were classified as offering such instruction even if such training was limited to one category of abuse, such as elder abuse or spouse abuse. No attempt was made to determine whether schools that offer ADV instruction were more likely to respond to the survey, nor was any attempt made to evaluate the prevalence of instruction that may not be specified in the curriculum (e.g., direct clinical contact with abuse victims).

An increase in demand for protective and rehabilitative services occurred when reporting of child abuse became more common after the widespread adoption of mandatory reporting laws in the 1960s (*11*). Similarly, curricular changes that increase detection and referral rates for ADV might further increase demand for community services. Medical education and community efforts in both child abuse and ADV should promote not only effective recognition, treatment, and referral of victims but also primary prevention. As a first step, a suggested hospital protocol (*12*) and a curriculum description and training manual for health educators (*13*) will be distributed by the NJMS DVPP to the surveyed faculty members requesting them. Further examination of medical school curricula about ADV and evaluation of methods of such instruction are needed. The methods that best promote effective treatment and prevention should then be disseminated to all programs and/or facilities that train health professionals.

[†]For more information, contact: ACOG, Resource Center, 409 12th St., SW, Washington, D.C., 20024–2188.

Domestic Violence — Continued

Additional information may be obtained from the NJMS DVPP, University Hospital, I-246150 Bergen St., Newark, NJ 07103–2757; or from the Jersey Battered Women's Service, Inc., (201) 455-1256.

References

1. Straus MA, Gelles RJ, Steinmetz SK. Behind closed doors: violence in the American family. Garden City, New York: Anchor Press/Doubleday, 1980.
2. Makepeace JM. Life events stress and courtship violence. Fam Relations 1983;32:101–9.
3. Cate RM, Henton JM, Koval J, Christopher FS, Lloyd S. Premarital abuse: a social psychological perspective. J Fam Issues 1982;3:79–89.
4. Pillemer K, Finkelhor D. The prevalence of elder abuse: a random sample survey. Gerontologist 1988;28:51–7.
5. Stark E, Flitcraft A, Zuckerman D, Grey A, Robison J, Frazier W. Wife abuse in the medical setting: an introduction for health personnel. Rockville, Maryland: National Clearinghouse on Domestic Violence, 1981. (Domestic violence monograph series no. 7).
6. US Department of Health and Human Services, US Department of Justice. Surgeon General's Workshop on Violence and Public Health: report. Washington, DC: US Department of Health and Human Services, Public Health Service, 1986.
7. US Department of Justice. Attorney General's Task Force on Family Violence: final report. Washington, DC: US Department of Justice, 1984.
8. Rosenberg ML, Stark E, Zahn MA. Interpersonal violence: homicide and spouse abuse. In: Last JM, ed. Public health and preventive medicine. 12th ed. Norwalk, Connecticut: Appleton-Century-Crofts, 1986.
9. American College of Obstetricians and Gynecologists. The battered woman. Washington, DC: American College of Obstetricians and Gynecologists, 1989. (ACOG technical bulletin no. 124).
10. American College of Obstetricians and Gynecologists. The abused woman. Washington, DC: American College of Obstetricians and Gynecologists, 1988. (ACOG patient education pamphlet no. AT083).
11. Newberger EH. The helping hand strikes again: unintended consequences of child abuse reporting. In: Newberger EH, Bourne R, eds. Unhappy families: clinical and research perspectives on family violence. Littleton, Massachusetts: PSG Publishing, 1985:171–8.
12. Braham R, Furniss K, Holtz H, Stevens ME. Hospital protocol on domestic violence. Morristown, New Jersey: Jersey Battered Women's Service, Inc, 1986.
13. Braham R, Furniss K, Holtz H. Hospital training on domestic violence. Morristown, New Jersey: Jersey Battered Women's Service, Inc, 1986.

Epidemiologic Notes and Reports

Toxigenic *Vibrio cholerae* O1 Infection Acquired in Colorado

On August 17, 1988, a 42-year-old man was treated for profuse watery diarrhea, vomiting, and dehydration at an emergency room in Rifle, Colorado. On August 15, he had eaten approximately 12 raw oysters from a new oyster-processing plant in Rifle. Approximately 36 hours after eating the oysters, he had sudden onset of symptoms and passed 20 stools during the day before seeking medical attention. Stool culture subsequently yielded toxigenic *Vibrio cholerae* O1, biotype El Tor, serotype Inaba. The patient had no underlying illness, was not taking medications, and had not traveled outside the region during the month before onset.

The oysters had been harvested on August 8, 1988, in a bay off the coast of Louisiana. Approximately 1000 bushels (200,000 oysters) arrived by refrigerator truck at the plant in Rifle on August 11. The patient purchased three dozen of these oysters on August 15.

Cholera — Continued

During a 6-day period, eight other persons shared the oysters purchased by the patient. None became ill. Although one of seven tested had a vibriocidal antibody titer of 1:640, none had elevated antitoxic antibody titers, and none had *V. cholerae* O1 isolated from stool. Physicians and local health departments were asked to notify the Colorado Department of Health about similar cases, but none were reported.

The oyster-processing plant in Rifle began operation in May 1988 and functioned as a wet-storage unit. The Gulf oysters were reportedly harvested from approved waters, trucked to Colorado, and placed in recirculating disinfected artificial seawater baths for a variable number of days before packaging for market. These oysters were probably the vehicle of infection for the case of cholera.

Reported by: M Doran, P Shillam, RE Hoffman, MD, State Epidemiologist, Colorado Dept of Health. LM McFarland, DrPH, Louisiana Dept of Health and Hospitals. Div of Field Svcs, Epidemiology Program Office; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: VcA-3 phage typing showed that the organism is identical to all others associated with an endemic focus known to have been present in the Gulf of Mexico since 1973 (*1–3*). This is the third reported case of toxigenic *V. cholerae* O1 apparently acquired from oysters shipped interstate in the United States (*4*) and is the first case known to have been acquired in Colorado during this century.

This report suggests that *V. cholerae* O1 may persist in oysters for many days after harvest. Several different *Vibrio* species previously have been associated with infections related to consumption of raw oysters (*5*). Since this case occurred, five additional oyster-related cases of cholera have been reported by five other states from August to October 1988. Thorough cooking remains the best method to prevent acquisition of infectious diseases from raw shellfish.

References

1. Blake PA, Allegra DT, Snyder JD, et al. Cholera—a possible endemic focus in the United States. N Engl J Med 1980;302:305–9.
2. CDC. Toxigenic *Vibrio cholerae* O1 infections—Louisiana and Florida. MMWR 1986;35:606–7.
3. CDC. Cholera in Louisiana—update. MMWR 1986;35:687–8.
4. Pavia AT, Campbell JF, Blake PA, Smith JDL, McKinley TW, Martin DL. Cholera from raw oysters shipped interstate [Letter]. JAMA 1987;258:2374.
5. Blake PA. Vibrios on the half shell: what the walrus and the carpenter didn't know. Ann Intern Med 1983;99:558–9.

Current Trends

Update: Influenza — United States, 1988–89 Season

As of January 13, 1989, 186 culture-confirmed cases of influenza in the United States had been reported to CDC. One hundred fifty (81%) of these were influenza type B viruses, 28 (15%) were type A(H1N1), and eight (4%) were type A(H3N2).

Age was reported for 99 of the persons with type B influenza. Although these cases occurred in persons aged 5 months to 77 years, 55 (56%) of these persons were ≤18 years of age. These viruses were reported from 23 states (Figure 1) and were implicated as the etiologic agent in four of the five culture-confirmed influenza outbreaks reported since mid-November. These four outbreaks occurred in elementary schools in Ohio, Nebraska, California, and Washington, where maximum absenteeism levels during the outbreaks ranged from 14% to 36%.

Influenza — Continued

The 28 influenza A(H1N1) viruses were reported from 11 states (Arizona, California, Colorado, Hawaii, Illinois, Ohio, Massachusetts, New York, Minnesota, Washington, and Wisconsin). The only outbreak associated with these viruses occurred at a Wisconsin university in December. During the outbreak's peak, approximately 25% of persons seen at the outpatient student clinic had an influenza-like illness; seven isolates of influenza A(H1N1) virus were recovered from 17 specimens tested from these students.

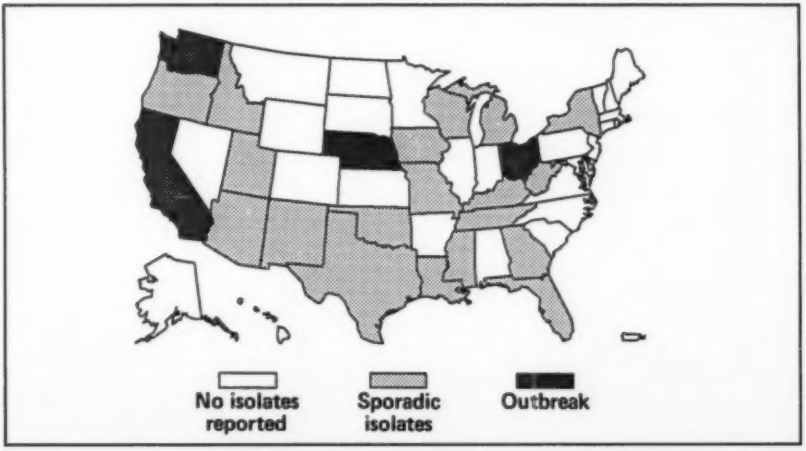
Four states (Florida, Hawaii, New York, and Pennsylvania) and the District of Columbia reported influenza A(H3N2) viruses but no outbreaks.

Reported by: Participating state and territorial epidemiologists and state laboratory directors. WHO Collaborating Laboratories. Sentinel Physicians of the American Academy of Family Physicians. Influenza Research Center, Baylor College of Medicine, Houston, Texas. Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office; WHO Collaborating Center for Influenza, Influenza Br, and Epidemiology Office, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: During the 1987–88 influenza season, influenza A(H3N2) predominated, and influenza B appeared late (*1*). In contrast, influenza B has predominated during the 1988–89 influenza season, with most reported illnesses occurring in children. The impact that this year's influenza B activity will have on older persons and persons at high risk of serious complications or death is unknown. However, excess mortality has occurred in each of the influenza B epidemics since 1979 (*2–4*). Thus, efforts to immunize high-risk persons in all age groups should continue even as outbreaks begin (*5*).

An increased risk for Reye syndrome in children and teenagers when aspirin is used to treat influenza symptoms has been reported in years when type B influenza has predominated (*6,7*). Parents, teenagers and children who self-medicate, and health-care workers should be aware of this possible serious complication associated with aspirin use.

FIGURE 1. Type B influenza activity — United States, 1988–89 season, through January 13, 1989



Influenza — Continued

Amantadine, which may be indicated for prophylaxis or treatment of influenza A, is not effective against influenza B (*5*). Thus, during seasons such as this, when both influenza A and B strains circulate, virus cultures need to be obtained during outbreaks of influenza-like illness to assess the appropriateness of amantadine therapy.

A recorded message on U.S. influenza activity is now available 24 hours a day. This message is updated weekly by CDC and can be accessed at (404) 332-4551.

References

1. CDC. Influenza—United States, 1987–88 season. MMWR 1988;37:497–503.
2. Nolan TF Jr, Goodman RA, Hinman AR, Noble GR, Kendal AP, Thacker SB. Morbidity and mortality associated with influenza B in the United States, 1979–1980: a report from the Center for Disease Control. J Infect Dis 1980;142:360–2.
3. Lui KJ, Kendal AP. Impact of influenza epidemics on mortality in the United States from October 1972 to May 1985. Am J Public Health 1987;77:712–6.
4. CDC. Influenza—United States, 1985–1986 season. MMWR 1986;35:470,475–9.
5. ACIP. Prevention and control of influenza. MMWR 1988;37:361–73.
6. Hurwitz ES, Barrett MJ, Bregman D, et al. Public Health Service study of Reye's syndrome and medications: report of the main study. JAMA 1987;257:1905–11.
7. CDC. Reye syndrome surveillance—United States, 1986. MMWR 1987;36:689–91.

TABLE I. Summary — cases of specified notifiable diseases, United States

Disease	2nd Week Ending			Cumulative, 2nd Week Ending		
	Jan. 14, 1989	Jan. 16, 1988	Median 1984-1988	Jan. 14, 1989	Jan. 16, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	902	U*	228	1,368	920	494
Aseptic meningitis	49	77	87	102	137	161
Encephalitis: Primary (arthropod-borne & unspec)	4	19	12	10	29	29
Post-infectious	2	-	-	3	1	1
Gonorrhea: Civilian	8,867	14,358	15,657	18,947	27,263	27,334
Military	124	216	294	263	372	687
Hepatitis: Type A	387	341	329	733	624	605
Type B	259	268	346	471	536	662
Non A, Non B	34	37	57	69	70	108
Unspecified	19	38	59	64	59	119
Legionellosis	10	8	12	15	30	21
Leprosy	-	4	4	5	4	8
Malaria	15	7	7	24	14	15
Measles: Total†	18	12	8	28	21	21
Indigenous	14	12	8	24	20	20
Imported	4	-	2	4	1	2
Meningococcal infections	26	60	56	53	102	97
Mumps	51	52	67	115	124	121
Pertussis	33	11	30	76	33	57
Rubella (German measles)	2	-	3	5	2	8
Syphilis (Primary & Secondary): Civilian	463	619	535	867	1,088	999
Military	3	4	4	9	6	6
Toxic Shock syndrome	3	5	6	7	8	11
Tuberculosis	224	277	277	473	401	401
Tularemia	1	7	3	2	7	3
Typhoid Fever	5	1	2	8	2	6
Typhus fever, tick-borne (RMSF)	1	-	1	3	-	3
Rabies, animal	33	46	59	73	77	122

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis	1
Botulism: Foodborne	-	Plague	-
Infant	-	Poliomyelitis, Paralytic	-
Other	-	Psittacosis (Upstate N.Y. 1)	2
Brucellosis	-	Rabies, human	-
Cholera	-	Tetanus (S.C. 1)	2
Congenital rubella syndrome	-	Trichinosis	-
Congenital syphilis, ages <1 year	-		
Diphtheria	-		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†One of the 18 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending January 14, 1989 and January 16, 1988 (2nd Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	1,368	102	10	3	18,947	27,263	733	471	69	64	15	5
NEW ENGLAND	82	5	-	-	839	810	14	48	5	5	1	-
Maine	3	-	-	-	14	21	-	1	1	-	-	-
N.H.	1	-	-	-	-	24	-	-	-	-	-	-
Vt.	1	-	-	-	2	8	-	2	-	-	-	-
Mass.	70	4	-	-	335	249	14	35	4	4	-	-
R.I.	2	1	-	-	26	71	-	9	-	1	1	-
Conn.	15	-	-	-	462	437	-	1	-	-	-	-
MID. ATLANTIC	438	3	-	-	1,033	3,653	130	58	5	5	2	1
Upstate N.Y.	57	2	-	-	-	227	29	22	3	-	1	-
N.Y. City	253	1	-	-	-	1,800	1	5	-	1	-	-
N.J.	93	-	-	-	215	326	7	5	1	1	-	-
Pa.	35	-	-	-	818	1,300	94	26	1	3	1	1
E.N. CENTRAL	177	26	4	-	2,905	4,375	32	64	6	2	5	-
Ohio	16	9	1	-	428	1,045	14	32	1	-	5	-
Ind.	54	-	-	-	522	466	-	-	-	-	-	-
Ill.	69	-	-	-	747	1,238	-	-	-	-	-	-
Mich.	38	17	3	-	1,147	1,301	17	32	5	2	-	-
Wis.	-	-	-	-	61	325	1	-	-	-	-	-
W.N. CENTRAL	41	3	-	-	797	1,037	5	2	2	-	-	-
Minn.	-	-	-	-	73	184	-	-	-	-	-	-
Iowa	8	3	-	-	66	100	3	2	2	-	-	-
Mo.	26	-	-	-	406	566	-	-	-	-	-	-
N. Dak.	1	-	-	-	-	10	-	-	-	-	-	-
S. Dak.	-	-	-	-	9	23	-	-	-	-	-	-
Nebr.	-	-	-	-	127	34	-	-	-	-	-	-
Kans.	6	-	-	-	116	120	2	-	-	-	-	-
S. ATLANTIC	309	16	1	1	6,432	6,618	46	65	10	3	-	-
Del.	11	1	-	-	109	93	4	4	-	-	-	-
Md.	52	4	-	-	325	411	11	10	4	2	-	-
D.C.	30	-	-	-	320	380	-	-	-	-	-	-
Va.	26	-	-	-	400	684	1	1	-	-	-	-
W. Va.	1	-	1	-	80	40	-	-	-	-	-	-
N.C.	1	6	-	1	1,115	705	27	41	6	-	-	-
S.C.	15	2	-	-	1,044	954	-	7	-	1	-	-
Ga.	27	1	-	-	1,010	1,450	1	1	-	-	-	-
Fla.	146	2	-	-	2,029	1,901	2	1	-	-	-	-
E.S. CENTRAL	25	14	-	-	2,032	2,172	8	53	11	1	2	-
Ky.	5	2	-	-	184	186	5	9	2	-	1	-
Tenn.	-	4	-	-	575	590	1	25	3	-	1	-
Ala.	9	8	-	-	660	847	2	19	6	1	-	-
Miss.	11	-	-	-	613	549	-	-	-	-	-	-
W.S. CENTRAL	26	1	1	-	1,888	4,433	27	6	-	1	2	-
Ark.	3	-	-	-	237	262	-	-	-	-	-	-
La.	19	-	-	-	208	1,777	-	-	-	-	-	-
Okla.	-	1	1	-	290	190	22	5	-	-	2	-
Tex.	4	-	-	-	1,153	2,204	5	1	-	1	-	-
MOUNTAIN	31	4	-	-	305	527	126	34	6	4	1	-
Mont.	-	-	-	-	6	16	1	6	-	-	-	-
Idaho	-	-	-	-	11	10	8	2	-	-	-	-
Wyo.	2	-	-	-	1	3	1	1	-	-	-	-
Colo.	3	1	-	-	-	152	20	3	1	3	-	-
N. Mex.	-	1	-	-	43	76	10	4	1	-	-	-
Ariz.	4	2	-	-	114	117	55	6	1	1	1	-
Utah	7	-	-	-	34	22	23	4	2	-	-	-
Nev.	22	-	-	-	96	131	8	6	1	-	-	-
PACIFIC	229	30	4	2	2,716	3,638	345	141	24	43	2	4
Wash.	2	-	-	-	102	243	1	-	-	-	-	-
Oreg.	19	-	-	-	129	118	33	4	2	-	-	-
Calif.	207	30	2	2	2,447	3,179	286	135	22	37	2	4
Alaska	-	-	2	-	36	60	45	2	-	6	-	-
Hawaii	1	-	-	-	2	38	-	-	-	-	-	-
Guam	-	-	-	-	-	7	-	-	-	-	-	-
P.R.	-	5	-	-	-	61	1	4	-	-	-	-
V.I.	-	-	-	-	16	15	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	3	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	1	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending January 14, 1989 and January 16, 1988 (2nd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	24	14	24	4	4	21	53	51	115	33	76	33	2	5	2
NEW ENGLAND	3	-	-	-	-	-	2	-	2	1	7	3	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-
N.H.	-	-	-	-	-	-	-	-	2	-	3	2	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mass.	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R.I.	-	-	-	-	-	-	1	-	-	1	2	-	-	-	-
Conn.	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
MID. ATLANTIC	5	-	-	-	-	-	3	5	8	1	12	-	-	-	-
Upstate N.Y.	4	-	-	-	-	-	2	-	-	-	-	-		-	-
N.Y. City	-	-	-	-	-	-	1	-	-	-	-	-		-	-
N.J.	-	-	-	-	-	-	-	4	4	1	11	-	-	-	-
Pa.	1	-	-	-	-	-	-	1	4	-	1	-	-	-	-
E.N. CENTRAL	1	-	-	-	-	1	4	6	14	-	1	2	-	-	1
Ohio	1	-	-	-	-	-	3	-	8	-	1	-	-	-	-
Ind.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ill.	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Mich.	-	-	-	-	-	-	1	6	6	-	-	1	-	-	-
Wis.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
W.N. CENTRAL	-	-	-	-	-	-	3	15	43	-	2	7	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	2	2	-	2	1	-	-	-
Mo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Nebr.	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	13	41	-	-	-	-	-	-
S. ATLANTIC	1	1	1	1	1	1	13	11	20	1	2	4	-	-	-
Del.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Md.	1	1	1	1§	1	-	4	7	7	-	-	-	-	-	-
D.C.	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	1	8	-	1	1	-	-	-
W. Va.	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
N.C.	-	-	-	-	-	1	3	1	2	1	1	2	-	-	-
S.C.	-	-	-	-	-	-	1	2	2	-	-	-	-	-	-
Ga.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fla.	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
E.S. CENTRAL	-	1	1	-	-	-	8	1	7	2	4	2	-	-	-
Ky.	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-
Tenn.	-	-	-	-	-	-	-	-	6	-	-	2	-	-	-
Ala.	-	1	1	-	-	-	2	1	1	2	4	-	-	-	-
Miss.	-	-	-	-	-	-	-	N	N	-	-	-	-	-	-
W.S. CENTRAL	-	-	-	2	2	-	1	7	9	-	-	-	-	-	-
Ark.	-	-	-	2§	2	-	-	2	2	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	1	4	4	-	-	-	-	-	-
Tex.	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-
MOUNTAIN	1	12	13	1	1	5	3	1	2	27	28	3	-	-	-
Mont.	-	12	12	1†	1	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Colo.	-	-	-	-	-	5	2	-	-	-	-	-	-	-	-
N. Mex.	-	-	-	-	-	-	-	N	N	-	-	-	-	-	-
Ariz.	-	-	1	-	-	-	1	1	1	26	27	1	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Nev.	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-
PACIFIC	13	-	9	-	-	14	16	5	10	1	20	12	2	5	1
Wash.	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Oreg.	-	-	-	-	-	-	1	N	N	-	-	-	-	-	-
Calif.	13	-	9	-	-	14	13	4	9	1	20	3	2	5	1
Alaska	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-		-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-		-	-	1	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending January 14, 1989 and January 16, 1988 (2nd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	867	1,088	7	473	401	2	6	3	73
NEW ENGLAND	103	32	-	5	3	-	1	-	-
Maine	-	1	-	-	-	-	-	-	-
N.H.	-	1	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-
Mass.	29	16	-	-	1	-	1	-	-
R.I.	27	-	-	-	1	-	-	-	-
Conn.	47	14	-	5	1	-	-	-	-
MID. ATLANTIC	82	235	1	157	116	1	3	-	13
Upstate N.Y.	-	6	-	-	11	-	-	-	-
N.Y. City	30	165	-	90	65	-	2	-	-
N.J.	52	22	-	53	20	-	-	-	-
Pa.	-	42	1	14	20	1	1	-	13
E.N. CENTRAL	17	18	-	42	71	-	-	-	4
Ohio	-	-	-	7	18	-	-	-	-
Ind.	3	7	-	1	-	-	-	-	-
Ill.	8	5	-	17	32	-	-	-	2
Mich.	6	4	-	15	17	-	-	-	1
Wis.	-	2	-	2	4	-	-	-	1
W.N. CENTRAL	8	3	1	15	13	-	-	1	1
Minn.	1	1	-	3	4	-	-	-	-
Iowa	1	-	-	2	2	-	-	1	-
Mo.	6	-	-	7	1	-	-	-	-
N. Dak.	-	-	-	-	1	-	-	-	-
S. Dak.	-	-	1	3	5	-	-	-	-
Nebr.	-	2	-	-	-	-	-	-	1
Kans.	-	-	-	-	-	-	-	-	-
S. ATLANTIC	359	402	2	94	54	-	-	-	20
Del.	3	1	-	-	2	-	-	-	-
Md.	18	19	-	13	4	-	-	-	3
D.C.	27	4	-	5	1	-	-	-	-
Va.	16	17	-	16	4	-	-	-	9
W. Va.	-	-	-	3	4	-	-	-	2
N.C.	15	19	2	11	-	-	-	-	-
S.C.	23	14	-	21	16	-	-	-	4
Ga.	71	68	-	-	-	-	-	-	2
Fla.	186	260	-	23	23	-	-	-	-
E.S. CENTRAL	68	45	-	23	35	-	-	2	3
Ky.	-	-	-	10	19	-	-	2	1
Tenn.	-	-	-	-	-	-	-	-	-
Ala.	41	28	-	13	16	-	-	-	2
Miss.	27	17	-	-	-	-	-	-	-
W.S. CENTRAL	105	136	-	14	4	1	-	-	17
Ark.	-	-	-	-	-	-	-	-	2
La.	24	11	-	7	-	-	-	-	-
Okla.	1	8	-	-	4	1	-	-	2
Tex.	80	117	-	7	-	-	-	-	13
MOUNTAIN	7	7	-	11	7	-	-	-	5
Mont.	-	-	-	-	-	-	-	-	4
Idaho	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-
Colo.	-	5	-	-	5	-	-	-	-
N. Mex.	-	-	-	-	-	-	-	-	-
Ariz.	4	-	-	10	-	-	-	-	1
Utah	3	2	-	-	-	-	-	-	-
Nev.	-	-	-	1	2	-	-	-	-
PACIFIC	118	210	3	112	98	-	2	-	10
Wash.	-	8	-	10	8	-	-	-	-
Oreg.	7	4	-	1	7	-	-	-	-
Calif.	111	196	3	100	77	-	2	-	8
Alaska	-	-	-	1	2	-	-	-	2
Hawaii	-	2	-	-	4	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	25	-	-	-	-	-	-	-
V.I.	-	1	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	1	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending January 14, 1989 (2nd Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	>65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	841	471	111	27	13	18	61
Boston, Mass.	181	116	38	12	4	10	19
Bridgeport, Conn.§	46	32	9	4	1	-	3
Cambridge, Mass.	20	18	2	-	-	-	4
Fall River, Mass.	32	28	2	1	1	-	2
Hartford, Conn.	48	34	10	1	2	1	2
Lowell, Mass.	39	31	4	1	2	1	2
Lynn, Mass.	14	10	4	-	-	-	1
New Bedford, Mass.	27	24	3	-	-	-	2
New Haven, Conn.	27	19	6	-	-	2	3
Providence, R.I.	31	21	9	1	-	-	-
Somerville, Mass.	8	6	2	-	-	-	2
Springfield, Mass.	49	36	8	4	1	-	10
Waterbury, Conn.	42	32	6	1	2	1	6
Worcester, Mass.	77	64	8	2	-	3	5
MID. ATLANTIC	3,274	2,215	507	302	88	72	218
Albany, N.Y.	48	41	3	3	1	-	5
Allentown, Pa.	23	21	1	1	-	-	-
Buffalo, N.Y.	149	110	27	8	2	2	15
Camden, N.J.	46	28	13	1	1	3	2
Elizabeth, N.J.	34	21	11	2	-	-	4
Erie, Pa.†	75	61	11	1	1	1	8
Jersey City, N.J.	75	46	18	9	1	1	2
N.Y. City, N.Y.	1,701	1,113	314	193	40	41	90
Newark, N.J.	101	55	16	20	8	2	12
Paterson, N.J.	30	16	6	6	1	1	-
Philadelphia, Pa.	487	322	97	31	23	14	26
Pittsburgh, Pa.†	63	49	10	2	1	1	5
Reading, Pa.	32	26	4	2	-	-	5
Rochester, N.Y.	140	104	24	9	1	2	21
Schenectady, N.Y.	28	22	4	2	-	-	4
Scranton, Pa.†	28	24	2	1	1	-	3
Syracuse, N.Y.	124	94	19	4	4	3	6
Trenton, N.J.	30	19	7	2	1	1	3
Utica, N.Y.	24	19	4	1	-	-	2
Yonkers, N.Y.	36	24	6	4	2	-	5
E.N. CENTRAL	2,819	1,738	554	188	60	79	129
Akron, Ohio	65	41	15	4	1	4	-
Canton, Ohio	58	45	11	-	1	1	11
Chicago, Ill§	564	362	125	45	10	22	16
Cincinnati, Ohio	196	146	33	8	3	6	25
Cleveland, Ohio	199	140	41	8	5	5	6
Columbus, Ohio	160	89	49	16	2	4	-
Dayton, Ohio	124	97	16	6	4	1	5
Detroit, Mich.	281	143	69	47	9	13	6
Evansville, Ind.	61	50	8	1	1	1	6
Fort Wayne, Ind.	69	52	12	5	-	-	4
Gary, Ind.	28	14	7	5	1	1	-
Grand Rapids, Mich.	82	59	18	4	1	-	12
Indianapolis, Ind.	220	145	51	11	5	8	4
Madison, Wis.§	42	33	6	2	1	-	4
Milwaukee, Wis.	137	91	35	6	1	5	5
Peoria, Ill.	49	23	15	6	2	3	9
Rockford, Ill.	40	27	8	1	2	2	3
South Bend, Ind.	62	45	11	3	2	1	4
Toledo, Ohio	114	83	12	9	8	2	9
Youngstown, Ohio	68	53	12	2	1	-	-
W.N. CENTRAL	913	643	170	48	20	32	46
Des Moines, Iowa	68	42	20	4	2	-	3
Duluth, Minn.	36	27	9	-	-	-	2
Kansas City, Kans.	25	14	6	2	-	3	-
Kansas City, Mo.	120	94	14	6	3	3	14
Lincoln, Nebr.	43	33	6	4	-	-	2
Minneapolis, Minn.	219	146	44	11	6	12	15
Omaha, Nebr.	116	84	22	3	5	2	7
St. Louis, Mo.	161	110	27	12	3	9	-
St. Paul, Minn.	77	58	12	4	-	3	2
Wichita, Kans.§	48	35	10	2	1	-	1
S. ATLANTIC	1,595	990	353	169	44	35	78
Atlanta, Ga.§	149	93	29	19	5	3	5
Baltimore, Md.	540	354	104	57	15	10	33
Charlotte, N.C.	121	76	32	11	2	-	5
Jacksonville, Fla.	115	65	34	7	7	2	4
Miami, Fla.	44	17	15	10	1	1	2
Norfolk, Va.	64	40	16	4	-	4	4
Richmond, Va.	102	54	31	11	4	1	7
Savannah, Ga.	60	37	12	8	2	1	3
St. Petersburg, Fla.	79	65	10	1	-	3	4
Tampa, Fla.	94	61	18	9	1	4	6
Washington, D.C.	199	103	50	31	7	8	5
Wilmington, Del.	28	25	2	1	-	-	-
E.S. CENTRAL	967	661	204	58	20	24	39
Birmingham, Ala.	161	92	39	16	7	7	3
Chattanooga, Tenn.	71	52	16	3	-	-	7
Knoxville, Tenn.	99	69	14	8	3	5	6
Louisville, Ky.	149	95	37	8	4	5	7
Memphis, Tenn.	193	153	30	9	-	1	-
Mobile, Ala.	43	33	7	3	-	-	3
Montgomery, Ala.	69	46	17	1	2	3	-
Nashville, Tenn.	182	121	44	10	4	3	13
W.S. CENTRAL	1,920	1,213	399	184	62	62	91
Austin, Tex.	63	43	10	9	-	1	6
Baton Rouge, La.	15	8	6	1	-	-	-
Corpus Christi, Tex.§	48	37	10	1	-	-	1
Dallas, Tex.	258	166	54	24	7	7	7
El Paso, Tex.	123	77	21	9	8	8	13
Fort Worth, Tex	137	97	26	7	3	4	8
Houston, Tex.§	734	436	169	89	24	16	18
Little Rock, Ark.	72	48	12	10	1	1	4
New Orleans, La.	92	55	15	4	3	15	-
San Antonio, Tex.	214	143	45	12	8	6	16
Shreveport, La.	45	26	7	4	7	1	5
Tulsa, Okla.	119	77	24	14	1	3	13
MOUNTAIN	863	563	190	55	27	25	42
Albuquerque, N. Mex.	83	52	11	7	10	2	4
Colo. Springs, Colo.	53	33	14	2	1	3	6
Denver, Colo.	151	104	24	15	2	6	4
Las Vegas, Nev.	129	85	33	9	2	-	13
Ogden, Utah	22	16	5	-	-	1	1
Phoenix, Ariz.	223	136	56	12	6	11	7
Pueblo, Colo.	22	16	5	-	-	1	1
Salt Lake City, Utah	42	24	11	3	3	1	1
Tucson, Ariz.	138	97	31	7	3	-	5
PACIFIC	2,266	1,552	427	168	56	51	151
Berkeley, Calif.	23	15	5	2	-	1	3
Fresno, Calif.	138	94	21	13	5	5	9
Glendale, Calif.	31	25	5	-	1	-	1
Honolulu, Hawaii	75	45	23	3	1	3	6
Long Beach, Calif.	111	72	27	7	4	1	15
Los Angeles Calif.	638	416	136	49	16	10	29
Oakland, Calif.	78	53	15	6	3	1	7
Pasadena, Calif.	26	22	2	1	-	1	2
Portland, Oreg.	153	121	21	8	2	1	9
Sacramento, Calif.	177	120	37	15	3	2	19
San Diego, Calif.	149	97	23	15	6	7	12
San Francisco, Calif.	198	131	33	24	4	6	9
San Jose, Calif.	221	147	48	15	5	6	18
Seattle, Wash.§	149	110	23	8	4	4	1
Spokane, Wash.	44	37	4	1	-	2	4
Tacoma, Wash.	55	47	4	1	2	1	7
TOTAL	15,058††	10,046	3,005	1,199	390	398	855

*Mortality data in this table are voluntarily reported from 121 cities in the United states, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

Years of Potential Life Lost Before Age 65 — United States, 1987

The number of years of potential life lost before age 65 (YPLL) is a measure of premature mortality that takes into account the age at death. The rate of YPLL decreased from 5016 per 100,000 U.S. residents in 1986 (final data [*1*]) to 4949/100,000 in 1987 (10% sample provisional data [*2*]), representing a 1.3% decline. Provisional YPLL for 1987 was lower than final YPLL for 1986 for 10 of 13 major categories

TABLE 1. Estimated years of potential life lost before age 65 (YPLL)* and mortality rates per 100,000 persons, by cause of death — United States, 1986 and 1987

Cause of death	YPLL for persons dying in 1986	YPLL for persons dying in 1987	Cause-specific mortality rate,† 1987
ALL CAUSES (Total)	**12,093,486**	**12,045,778**	**874.0**
Unintentional injuries§ (E800–E949)	2,358,426	2,295,710	39.0
Malignant neoplasms (140–208)	1,832,210	1,837,742	196.1
Heart diseases (390–398, 402, 404–429)	1,557,041	1,494,227	313.4
Suicide/Homicide (E950–978)	1,360,508	1,289,223	21.2
Congenital anomalies (740–759)	661,117	642,551	5.0
Prematurity¶ (765, 769)	428,796	422,813	2.7
Human immunodeficiency virus infection (042–044 for 1987)**	246,823	357,536	5.4
Sudden infant death syndrome (798)	340,431	286,733	1.8
Cerebrovascular disease (430–438)	246,131	246,479	61.3
Chronic liver disease and cirrhosis (571)	231,558	228,145	10.7
Pneumonia/Influenza (480–487)	175,386	166,775	28.8
Chronic obstructive pulmonary disease (490–496)	128,590	123,260	32.2
Diabetes mellitus (250)	121,117	119,155	15.6

*For details of calculation, see footnotes to Table V, *MMWR* 1988;37:45.
†Cause-specific mortality rates as reported by the National Center for Health Statistics (NCHS) are compiled from a 10% sample of all deaths.
§Equivalent to accidents and adverse effects.
¶Category derived from disorders relating to short gestation and respiratory distress syndrome.
**1986 data is from CDC surveillance of acquired immunodeficiency disease cases. Data for 1987 is derived from death certificates coded to the *International Classification of Diseases, Ninth Revision* (ICD-9) codes 042–044 for HIV infection. These codes were introduced into the national vital statistics system by NCHS in 1987.

YPLL — Continued

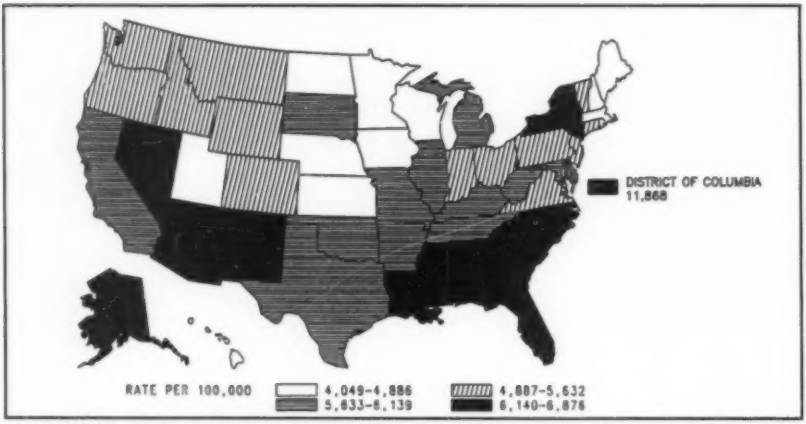
(Table 1). The largest decline in YPLL (16%) occurred for sudden infant death syndrome (SIDS). A 45% increase in YPLL was attributed to human immunodeficiency virus (HIV) infection, which changed rank order of YPLL from 1986 (eighth) to 1987 (seventh). Small increases in YPLL occurred for malignant neoplasms (0.3%) and cerebrovascular disease (0.1%). In the absence of increased HIV-related YPLL, the total YPLL rate would have decreased 2.2% from 1986 to 1987.

When age-adjusted YPLL rates were calculated by state (Figure 1), states in the two highest quartiles appear predominantly in the southern half of the United States. The higher YPLL rates may reflect the racial composition of the southern states since they have a higher proportion of blacks (*4*), and blacks have a lower life expectancy than whites (*5*). The YPLL rate for the District of Columbia (11,868/100,000) far exceeds the highest rate for any state (6876/100,000).

Reported by: Epidemiology and Surveillance Br, Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC.

Editorial Note: Different data sources were used to calculate YPLL attributed to HIV infection in 1986 and 1987. For 1986 and previous years, YPLL were calculated using deaths reported through CDC surveillance of acquired immunodeficiency syndrome cases. For 1987, YPLL were calculated from national vital records using ICD-9 codes 042–044 for classifying and coding "HIV infection." These codes were introduced by NCHS in 1987 (*2*).

FIGURE 1. Rates of years of potential life lost before age 65 (YPLL), by state — United States, 1986*



*Rates of YPLL were age-adjusted to the 1986 U.S. population aged 0–65 years, using the direct method. Age-adjustment was performed using age groups 0–14, 15–24, 25–34, 35–44, 45–54, and 55–64 years. State population estimates for 1986 were based on intercensal estimates using a cohort-component method and 1980 census data (*3*).

YPLL — Continued

References

1. National Center for Health Statistics. Advance report of final mortality statistics, 1986. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988; DHHS publication no. (PHS)88-1120. (Monthly vital statistics report; vol 37, no. 6 suppl).
2. National Center for Health Statistics. Annual summary of births, marriages, divorces, and deaths: United States, 1987. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, 1988; DHHS publication no. (PHS)88-1120. (Monthly vital statistics report; vol 36, no. 13).
3. Irwin R. 1980–1986 Intercensal population estimates by race, sex, and age [machine-readable data file]. Alexandria, Virginia: Demo-Detail, November 16, 1987.
4. Bureau of the Census. State and metropolitan area data book, 1986. Washington, DC: US Department of Commerce, Bureau of the Census, 1986:509.
5. Keith VM, Smith DP. The current differential in black and white life expectancy. Demography 1988;25:625–32.

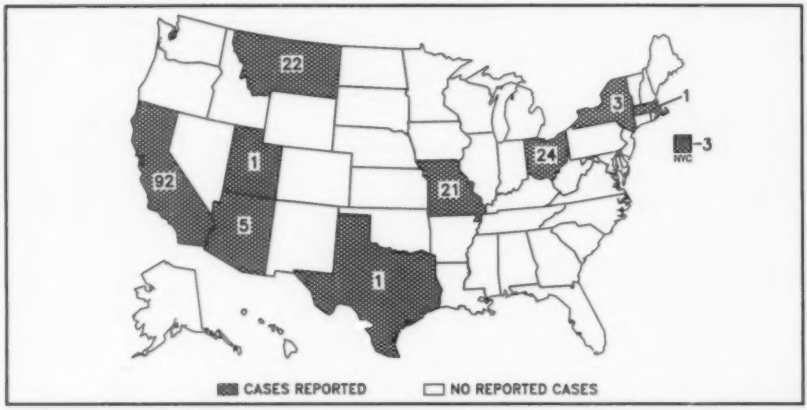
Notice to Readers

Publication of *Reducing the Health Consequences of Smoking: 25 Years of Progress*

The Surgeon General's report, *Reducing the Health Consequences of Smoking: 25 Years of Progress*, was released on January 11, 1989, exactly 25 years after release of the first Surgeon General's report on smoking and health. The 1989 report provides a comprehensive review of developments related to smoking and health during the past quarter century, focusing on the following topics: advances in knowledge of the health effects of smoking; changes in smoking-attributable mortality; trends in public beliefs, attitudes, and opinions about smoking; changes in smoking behavior and knowledge about the determinants of smoking; smoking prevention, cessation and advocacy activities; smoking-control policies; and behavioral and health consequences of changes in the smoking-and-health environment.

A final indexed version of the report will be available for purchase from the Government Printing Office in several months. An executive summary of the report will be published as a supplement to the *MMWR* within 2 months. A limited supply of executive summaries is now available from the Office on Smoking and Health, CDC, 5600 Fishers Lane, Park Building, Room 1–16, Rockville, MD 20857; telephone (301) 443-1690.

FIGURE I. Reported measles cases—United States, Weeks 50–52, 1988, and week 1, 1989



The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

☆U.S. Government Printing Office: 1989-631-108/81543 Region IV

HHS Publication No. (CDC) 89-8017